ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2014

Presented By

Tuolumne Utilities District

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Our Mission Continues

Tuolumne Utilities District (TUD) is proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2014. Last year was challenging for all of us as we all had to adjust to the drought conditions. Unfortunately, this year it again is going to be a challenge as we continue into the drought. TUD though is grateful that last year we had customers that stepped up their water conservation efforts. We thank you for your support and for conserving our valued water supply.

There are many ways you can help during this summer's drought. Conserve water and pass along your conservation tips to others. Looking for some helpful conservation tips inside and outside your home? The District has a lot of conservation ideas on the TUD Web site, www.tudwater.com. Also, as the summer progresses conditions may change. Make sure to check back to the Web site to see if water restrictions have changed or if there is other new information that you need to know.

If you see running water down a street and it doesn't appear to be from sprinklers, there is a chance you could be witnessing a mainline water pipeline break. The District has more than 330 miles of treated water pipeline so there are many times that an old pipe could rupture over time. TUD's dedicated field crew are on-call to respond 24 hours a day, seven days a week, to make sure that water leaks are repaired as quickly as possible. If you see a water leak, make sure you contact our office anytime at (209) 532-5536.

As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Thank you for being a customer of Tuolumne Utilities District and for allowing us to continue providing you with quality drinking water.

To better assist you with the information provided in this report, please visit the TUD Web site at www.tudwater.com to view which water treatment plant serves your area. Should you ever have any questions related to your drinking water, please call Don Perkins, Water Superintendent, at (209) 532-5536, extension 554.

Where Does My Water Come From?

The most important factor in water quality is its source. There are two sources of supply from which Tuolumne Utilities District (District, or TUD) receives its water: surface water that originates from rainfall and runoff from snowpack in the Sierra Nevada Mountains and from groundwater wells. The District comprises 17 water service areas, 13 surface water treatment plants, and 23 active wells.

Approximately 96% of TUD's annual water needs are met with surface water; the other 4% is met with groundwater either as a primary source or a backup source. In 2014, the Sonora-Jamestown System supplied supplemental water to the East Sonora, Mono Village, and Cuesta/Lambert Systems.

To learn more about our watershed on the Internet, go to the U.S. EPA's Surf Your Watershed at www.epa.gov/surf.

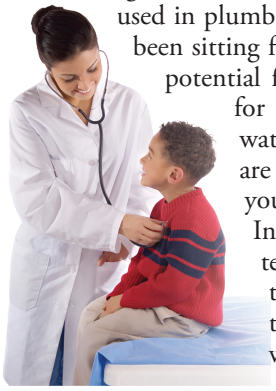
Source Water Assessment

An assessment of the drinking water sources for all TUD water systems was completed in 2002-2003. A copy of the complete assessment of each system may be viewed at The Regional Water Control Board Office, 265 W Bullard Ave. Suite 101, Fresno Ca 93704.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.



Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Community Participation

You are invited to attend our regularly scheduled Board meetings held on the second Tuesday of each month beginning at 2:00 p.m. and the fourth Tuesday of each month, beginning at 5:30 p.m. in the Tuolumne Utilities District boardroom, at 18885 Nugget Boulevard, Sonora, California. Current information is available on our website www.tudwater.com. The Board meetings can be viewed live on our website and in our meeting archives.

How Is My Water Treated and Purified?

The typical water treatment process requires several steps. These steps are required to ensure that your water is safe, wholesome, and free of contaminants.

1. **Intake from source water**: This is where the water entering the treatment process is screened to remove large debris.
2. **Coagulation**: Small particles are brought together to form a large floc, which allows for the majority of turbidity to settle out of the water.
3. **Filtration**: The remaining finer particles are filtered from the water using specially designed filter media.
4. **Disinfection**: A disinfectant is applied to the water to kill any bacteria present in the water.
5. Storage: The finished water product is stored in sealed tanks, where it is then delivered to the consumer.
6. **Quality Monitoring**: Water quality is monitored at the treatment process and throughout the distribution system to ensure that the water is in compliance with federal and state standards at all times.

Tap vs. Bottled

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council, bottled water is not necessarily cleaner or safer than most tap water. In fact, about 25 percent of bottled water is actually just bottled tap water (40 percent according to government estimates).

The Food and Drug Administration is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Further, the FDA completely exempts bottled water that's packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to $1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you'd pay for bottled water.

For a detailed discussion on the NRDC study results, check out their Web site at www.nrdc.org/water/drinking/bw/exesum.asp.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table shows only those contaminants that were detected in the water. The state requires us to monitor for certain substances less than once per year, because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Iron and manganese were found at levels that exceed the secondary MCLs (SMCLs) of 300 ppb and 50 ppb, respectively. These SMCLs were set to protect you against unpleasant aesthetic effects such as color, taste, odor, and the staining of plumbing fixtures and clothing while washing. Since violating these SMCLs does not pose a risk to public health, the state allows the affected community to decide whether or not to treat or remove it. The high iron and manganese levels come from our wells, that are mainly used as back-up sources. These wells are normally used during the annual ditch outage, which is approximately seven days a year.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (UCMR3) program, by performing additional tests for the Sonora and Mono Village Water Systems. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality.

REGULATED SUBSTANCES

				Apple Valley	Big Hill	Cedar Ridge	Columbia		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED (RANGE)	AMOUNT DETECTED (RANGE)	AMOUNT DETECTED (RANGE)	AMOUNT DETECTED (RANGE)	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2014	[4.0 (as Cl2)]	[4 (as Cl2)]	0.84 (0.65–1.1)	1.6 (1.5–1.8)	1.3 (1.2–1.4)	1.7 (1.4–1.9)	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2014	TT	NA	NA	NA	1.75 (1.3–2.1)	NA	No	Various natural and man-made sources
Fluoride (ppm)	2012	2.0	1	0.2 (0.13–0.2)	ND[1]	0.12[1] (ND–0.23)	ND[1]	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2006	15	(0)	0.2 (ND–2.5)	ND[1]	0.7[1] (ND–1.4)	ND[1]	No	Erosion of natural deposits
Haloacetic Acids–Stage 2 (ppb)	2014	60	NA	ND	44.5 (24–70)	19.8 (ND–39)	42.5 (28–62)	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2014	45	45	0.93 (ND–2.8)	ND	ND	ND	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2014	80	NA	ND	51.8 (30–70)	18.7 (0.85–34)	43.3 (29–54)	No	By-product of drinking water disinfection
Turbidity[5] (NTU)	2012	TT	NA	NA	0.13[1] (0.04–0.13)	0.25[1] (0.04–0.25)	0.15[1] (0.04–0.15)	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2014	TT	NA	NA	100	100	98.8	No	Soil runoff

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	Crystal Falls/Willow Springs AMOUNT DETECTED (RANGE)	Cuesta Center/Lambert Lakes AMOUNT DETECTED (RANGE)	East Sonora AMOUNT DETECTED (RANGE)	Mono Village AMOUNT DETECTED (RANGE)	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2014	[4.0 (as Cl2)]	[4 (as Cl2)]	1.5 (1.3–1.7)	0.80 (0.55–1.1)	1.1 (0.62–1.9)	0.96 (0.72–1.3)	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2014	TT	NA	1.7 (1.2–2.1)	2.6 (1.7–4.3)	2.6 (1.7–4.3)	2.6 (1.7–4.3)	No	Various natural and man-made sources
Fluoride (ppm)	2012	2.0	1	0.07[1] (ND–0.2)	0.1[1] (ND–0.11)	0.11[1] (ND–0.22)	0.12[1] (ND–0.18)	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2006	15	(0)	0.2[1] (ND–0.59)	ND	14.2[2] (ND–40.4)	1.7[1] (ND–4.97)	No	Erosion of natural deposits
Haloacetic Acids–Stage 2 (ppb)	2014	60	NA	44.8 (26–63)	18.4 (ND–51)	20.5 (15–27)	32.3 (15–47)	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2014	45	45	ND	11 (ND–21)	2 (ND–5.6)	ND	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2014	80	NA	52.8 (27–66)	43.8 (38–54)	40 (29–49)	44.8 (30–56)	No	By-product of drinking water disinfection
Turbidity[5] (NTU)	2012	TT	NA	0.29[1] (0.04–0.29)	0.16[1] (0.05–0.16)	0.16[1] (0.05–0.16)	0.16[1] (0.05–0.16)	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2014	TT	NA	99.4	100	100	100	No	Soil runoff

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	Monte Grande/Curtis Creek AMOUNT DETECTED (RANGE)	Peaceful Pines AMOUNT DETECTED (RANGE)	Phoenix Lake AMOUNT DETECTED (RANGE)	Ponderosa AMOUNT DETECTED (RANGE)	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2014	[4.0 (as Cl2)]	[4 (as Cl2)]	1.6 (1.4–1.8)	0.99 (0.63–1.4)	0.92 (0.72–1.2)	1.6 (1.4–1.8)	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2014	TT	NA	NA	NA	NA	2.3 (1.1–5.9)	No	Various natural and man-made sources
Fluoride (ppm)	2012	2.0	1	ND[1]	0.23	0.16	ND[1]	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2006	15	(0)	ND[1]	1.14 (1.08–1.2)	2.0 (1.4–3.04)	ND[1]	No	Erosion of natural deposits
Haloacetic Acids–Stage 2 (ppb)	2014	60	NA	46.5 (23–68)	2.1	14	34.8 (23–45)	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2014	45	45	ND	ND	ND	ND	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2014	80	NA	52.3 (28–71)	1.8	48	44 (30–52)	No	By-product of drinking water disinfection
Turbidity[5] (NTU)	2012	TT	NA	0.11[1] (0.03–0.11)	NA[1]	NA[1]	0.19[1] (0.04–0.19)	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2014	TT	NA	100	NA	NA	99.0	No	Soil runoff

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	Scenic View AMOUNT DETECTED (RANGE)	Sonora/Jamestown AMOUNT DETECTED (RANGE)	Tuolumne AMOUNT DETECTED (RANGE)	Upper Basin AMOUNT DETECTED (RANGE)	Wards Ferry AMOUNT DETECTED (RANGE)	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2014	[4.0 (as Cl2)]	[4 (as Cl2)]	1.6 (1.4–1.7)	1.7 (1.6–1.8)	1.6 (1.3–1.7)	1.9 (1.8–2.0)	0.39 (0.05–0.72)	No	Drinking water disinfectant added for treatment
Control of DBP precursors [TOC] (ppm)	2014	TT	NA	2.6 (1.5–4.4)	2.6 (1.7–4.3)	2.4 (1.6–2.9)	1.8 (0.9–2.2)	NA	No	Various natural and man-made sources
Fluoride (ppm)	2012	2.0	1	ND[1]	0.1[1] (ND–0.19)	ND[1]	0.05[1] (ND–0.2)	ND	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2006	15	(0)	9[3] (ND–24)	ND[1]	ND[1]	0.88 (ND–4.25)	ND[4]	No	Erosion of natural deposits
Haloacetic Acids–Stage 2 (ppb)	2014	60	NA	23.8 (14–35)	44.3 (18–62)	29.3 (14–42)	40.5 (20–55)	ND	No	By-product of drinking water disinfection
Nitrate [as nitrate] (ppm)	2014	45	45	ND	ND	ND	ND	13	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2014	80	NA	41.8 (20–70)	53.5 (32–74)	48.5 (29–66)	32.5 (24–41)	5.4	No	By-product of drinking water disinfection
Turbidity[5] (NTU)	2012	TT	NA	0.13[1] (0.04–0.13)	0.16[1] (0.05–0.16)	0.24[1] (0.07–0.24)	0.27[1] (0.07–0.27)	NA[1]	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2014	TT	NA	100	100	100	100	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	Apple Valley 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	Big Hill 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	Cedar Ridge 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	Columbia 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	Crystal Falls/Willow Springs 90TH PERCENTILE (SITES ABOVE AL/TOTAL)	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2014	1.3	0.3	0.18 (0/5)	0.1 (0/10)	0.15 (0/11)	0.057 (0/21)	0.18[6] (0/20)	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2014	15	0.2	ND (0/5)	ND (0/10)	ND (1/11)	6.8 (2/21)	ND[6] (1/20)	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	Cuesta Center/Lambert Lakes 90TH PERCENTILE (SITES ABOVE AL/TOTAL)	East Sonora 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	Mono Village 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	Monte Grande/Curtis Creek 90TH PERCENTILE (SITES ABOVE AL/TOTAL)	Peaceful Pines 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2014	1.3	0.3	0.515 (0/5)	0.545 (0/5)	0.092[6] (0/10)	0.12 (0/10)	ND (0/5)	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2014	15	0.2	11.5 (1/5)	ND (0/5)	ND[6] (0/10)	ND (0/10)	ND (0/5)	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	Phoenix Lake 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	Ponderosa 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	Scenic View 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	Sonora/Jamestown 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	Tuolumne 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	Upper Basin 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	Wards Ferry 90TH PERCENTILE (SITES ABOVE AL/ TOTAL)	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2014	1.3	0.3	0.2 (0/5)	0.11[7] (0/10)	0.09[7] (0/10)	0.21[6] (0/31)	0.082[7] (0/10)	0.16 (0/10)	0.42[7] (0/5)	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2014	15	0.2	ND (0/5)	ND[7] (1/10)	ND[7] (0/10)	ND[6] (1/31)	6.8[7] (0/10)	8.5 (1/10)	ND[7] (0/5)	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	Apple Valley AMOUNT DETECTED (RANGE)	Big Hill AMOUNT DETECTED (RANGE)	Cedar Ridge AMOUNT DETECTED (RANGE)	Columbia AMOUNT DETECTED (RANGE)	Crystal Falls/Willow Springs AMOUNT DETECTED (RANGE)	EXCEEDANCE	TYPICAL SOURCE
Copper (ppm)	2012	1.0	NS	ND	ND[1]	ND[1]	ND[1]	ND[1]	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron (ppb)	2012	300	NS	50 (ND–150)	ND[1]	650[1] (ND–1,300)	ND[1]	187[1] (ND–560)	Yes	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2012	50	NS	16 (ND–48)	ND[1]	81[1] (11–150)	ND[1]	77[1] (ND–220)	Yes	Leaching from natural deposits
Sulfate (ppm)	2012	500	NS	8.4 (5–13)	ND[1]	3.6[1] (ND–7.1)	ND[1]	1.4[1] (ND–4.3)	No	Runoff/leaching from natural deposits; industrial wastes
Zinc (ppm)	2012	5.0	NS	ND	ND[1]	0.029[1] (ND–0.057)	ND[1]	0.17[1] (ND–0.51)	No	Runoff/leaching from natural deposits; industrial wastes

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	Cuesta Center/Lambert Lakes AMOUNT DETECTED (RANGE)	East Sonora AMOUNT DETECTED (RANGE)	Mono Village AMOUNT DETECTED (RANGE)	Monte Grande/Curtis Creek AMOUNT DETECTED (RANGE)	Peaceful Pines AMOUNT DETECTED (RANGE)	EXCEEDANCE	TYPICAL SOURCE
Copper (ppm)	2012	1.0	NS	0.004[1] (ND–8.0)	0.0027[1] (ND–8.0)	ND[1]	ND[1]	ND	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron (ppb)	2012	300	NS	70[1] (ND–140)	ND[1]	ND[1]	ND[1]	ND	Yes	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2012	50	NS	5.5[1] (ND–11)	3.7[1] (ND–11)	ND[1]	ND[1]	62[1]	Yes	Leaching from natural deposits
Sulfate (ppm)	2012	500	NS	5.2[1] (4.3–6.0)	9.1[1] (4.3–12)	33.2[1] (6.7–77)	ND[1]	4.2	No	Runoff/leaching from natural deposits; industrial wastes
Zinc (ppm)	2012	5.0	NS	ND[1]	0.5[1] (ND–1.5)	0.4[1] (ND–1.2)	ND[1]	ND	No	Runoff/leaching from natural deposits; industrial wastes

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	Phoenix Lake AMOUNT DETECTED (RANGE)	Ponderosa AMOUNT DETECTED (RANGE)	Scenic View AMOUNT DETECTED (RANGE)	Sonora/Jamestown AMOUNT DETECTED (RANGE)	Tuolumne AMOUNT DETECTED (RANGE)	Upper Basin AMOUNT DETECTED (RANGE)	Wards Ferry AMOUNT DETECTED (RANGE)	EXCEEDANCE	TYPICAL SOURCE
Copper (ppm)	2012	1.0	NS	ND	ND[1]	ND[1]	0.004[1] (ND–0.008)	ND[1]	0.0013[1] (ND–0.0051)	ND	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron (ppb)	2012	300	NS	ND[1]	ND[1]	ND[1]	ND[1]	ND[1]	253[1] (ND–600)	ND	Yes	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2012	50	NS	ND[1]	ND[1]	16[1]	11[1]	ND[1]	105[1] (ND–180)	ND	Yes	Leaching from natural deposits
Sulfate (ppm)	2012	500	NS	4.1	ND[1]	ND[1]	52[1] (4.3–100)	ND[1]	4.4[1] (ND–7.3)	3.5	No	Runoff/leaching from natural deposits; industrial wastes
Zinc (ppm)	2012	5.0	NS	ND	ND[1]	ND[1]	0.24[1] (ND–0.48)	ND[1]	0.104[1] (ND–0.21)	ND	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Apple Valley AMOUNT DETECTED (RANGE)	Big Hill AMOUNT DETECTED (RANGE)	Cedar Ridge AMOUNT DETECTED (RANGE)	Columbia AMOUNT DETECTED (RANGE)	Crystal Falls/ Willow Springs AMOUNT DETECTED (RANGE)	Cuesta Center/ Lambert Lakes AMOUNT DETECTED (RANGE)	East Sonora AMOUNT DETECTED (RANGE)	Mono Village AMOUNT DETECTED (RANGE)	Monte Grande/ Curtis Creek AMOUNT DETECTED (RANGE)	Peaceful Pines AMOUNT DETECTED (RANGE)	Phoenix Lake AMOUNT DETECTED (RANGE)	Ponderosa AMOUNT DETECTED (RANGE)	Scenic View AMOUNT DETECTED (RANGE)
Chromium VI [Hexavalent Chromium] (ppb)	2014	NA	NA	NA	NA	NA	0.06 (0.04–0.09)	0.06 (0.04–0.09)	0.06 (0.04–0.09)	NA	NA	NA	NA	NA
Sodium (ppm)	2012	13.3 (13–14)	6.3[1]	4.8[1] (4.1–5.5)	7.1[1]	6.7[1] (4.7–10)	9 (5.3–12)	10[1] 5.3–14	12.9[1] (9.7–15)	6.2[1]	14	16	5.8[1]	8.6[1]
Vanadium (ppb)	2014	NA	NA	NA	NA	NA	1.1 (0.92–1.3)	1.1 (0.92–1.3)	1.1 (0.92–1.3)	NA	NA	NA	NA	NA
Chlorate (ppb)	2014	NA	NA	NA	NA	NA	398 (270–480)	398 (270–480)	376 (270–480)	NA	NA	NA	NA	NA
Hardness (ppm)	2014	163[7] (130–190)	9.2	65 (9–120)	11	31 (10–70)	74[7] (18–130)	99 (18–160)	182 (65–250)	12	73[7]	270[7]	10	12
Molybdenum (ppb)	2014	NA	NA	NA	NA	NA	NA	NA	1.5 (ND–7.7)	NA	NA	NA	NA	NA
Strontium (ppb)	2014	NA	NA	NA	NA	NA	46 (33–68)	46 (33–68)	46 (33–68)	NA	NA	NA	NA	NA

UNREGULATED SUBSTANCES

		Sonora/Jamestown	Tuolumne	Upper Basin	Wards Ferry
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED (RANGE)	AMOUNT DETECTED (RANGE)	AMOUNT DETECTED (RANGE)	AMOUNT DETECTED (RANGE)
Chromium VI [Hexavalent Chromium] (ppb)	2014	0.06 (0.04–0.09)	NA	NA	NA
Sodium (ppm)	2012	11[1] (5.3–17)	8.6[1]	8[1] (5.2–8.9)	9.9
Vanadium (ppb)	2014	1.1 (0.92–1.3)	NA	NA	NA
Chlorate (ppb)	2014	398 (270–480)	NA	NA	NA
Hardness (ppm)	2014	89 (18–160)	11	48 (9.3–84)	150[7]
Molybdenum (ppb)	2014	NA	NA	NA	NA
Strontium (ppb)	2014	46 (33–68)	NA	NA	NA

[1] Sampled in 2014.

[2] Sampled in 2011.

[3] Sampled in 2009.

[4] Sampled in 2010.

[5] Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

[6] Sampled in 2013.

[7] Sampled in 2012.

Definitions

AL (Regulatory Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.